

157 -001
thru
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159 -001
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Ritter®
by MIDMARK

Service and Parts Manual

Examination and Alternate Care Lights

Serial Number Prefix:
BR, EW & EX



157
158
159

FOR USE BY MIDMARK
TRAINED TECHNICIANS ONLY

[Go To Table Of Contents](#)

TABLE OF CONTENTS

Section/Paragraph	Page	Section/Paragraph	Page
IMPORTANT INSTRUCTIONS		SECTION VI PARTS LIST	
General Safety Instructions	ii	6.1 Introduction	6-1
Warnings	ii	6.2 Description of Columns	6-1
Warranty Instructions	ii	Exam Lights	6-2
SECTION I GENERAL INFORMATION		Exam Light	6-3
Not Applicable		Exam Light Head Assembly	6-4
SECTION II TESTING AND TROUBLESHOOTING		Exam Light Head Assembly	6-5
Not Applicable		158 Exam Light Head Assembly	6-6
SECTION III SCHEDULED MAINTENANCE		159 Exam Light Head Assembly	6-7
Not Applicable		158 / 159 Head & Arm Assembly	6-8
SECTION IV MAINTENANCE/SERVICE		158 / 159 Head & Arm Assembly	6-9
INSTRUCTIONS		158 / 159 Wall or Cabinet Mount Comp. ...	6-10
Not applicable		157 Exam Light Upright	6-11.*
SECTION V SCHEMATICS AND DIAGRAMS		157 Exam Light Base	6-12.*
5.1 Electrical Schematics / Wiring Diagrams	5-1	157 Exam Light Base w/Casters	6-13
		157 Exam Light Cabinet Mounting	6-14
		Exam Light Base Components	6-15
		158 / 159 Base Components	6-16
		157 Exam Light Wall Mounting	6-17
		157 Exam Light Export Plug	6-18
		Exam Light Caster Accessory	6-19
		COMMENTS	7-1
		FAX ORDERING FORM	7-2

(*) Indicates that there has been a serial number break for the illustration and that there are additional point page(s) following the original page.

IMPORTANT INSTRUCTIONS

General Safety Instructions

Safety First: The primary concern of Midmark Corporation is that this examination light is maintained with the safety of the patient and staff in mind. To assure that services and repairs are completed safely and correctly, proceed as follows:

- (1) Read this entire manual before performing any services or repairs on this exam light.
- (2) Be sure you understand the instructions contained in this manual before attempting to service or repair this exam light.

Warnings

Throughout this manual are Note, Caution, and Danger paragraphs that call attention to particular procedures. These items are used as follows:

NOTE

A note is used to amplify an operating procedure, practice or condition.



CAUTION

A CAUTION is used for an operating procedure, practice, or condition which, if not correctly followed, could result in equipment damage.



DANGER

A DANGER is used for an operating procedure, practice, or condition which, if not correctly followed, could result in loss of life or serious personal injury.

Warranty Instructions

Refer to the Midmark "Limited Warranty" printed on the back cover of the Installation and Operation Manual for warranty information. Failure to follow the guidelines listed below will void the warranty and/or render the 157 / 158 / 159 Examination Light unsafe for operation.

- In the event of a malfunction, do not attempt to operate the exam light until necessary repairs have been made.
- Do not attempt to disassemble exam light, replace malfunctioning or damaged components, or perform adjustments unless you are one of Midmark's authorized service technicians.
- Do not substitute parts of another manufacturer when replacing inoperative or damaged components. Use only Midmark replacement parts.

SECTION VI
PARTS LIST

6.1. Introduction

The illustrated parts list provides information for identifying and ordering the parts necessary to maintain the unit in peak operating condition. Refer to paragraph 1.5 for parts ordering information.

The parts list also illustrates disassembly and assembly relationships of parts.

6.2. Description of Columns

The *Item* column of the parts list gives a component its own unique number. The same number is given to the component in the parts illustration. This allows a part number of a component to be found if the technician can visually spot the part on the illustration. The technician simply finds the component in question on the illustration and notes the item number of that component. Then, he finds that item number in the parts list. The row corresponding to the item number gives the technician the part number, a description of the component, and quantity of parts per subassembly. Also, if a part number is known, the location of that component can be determined by looking for the item number of the component on the illustration.

The *Part No.* column lists the MIDMARK part number for that component.

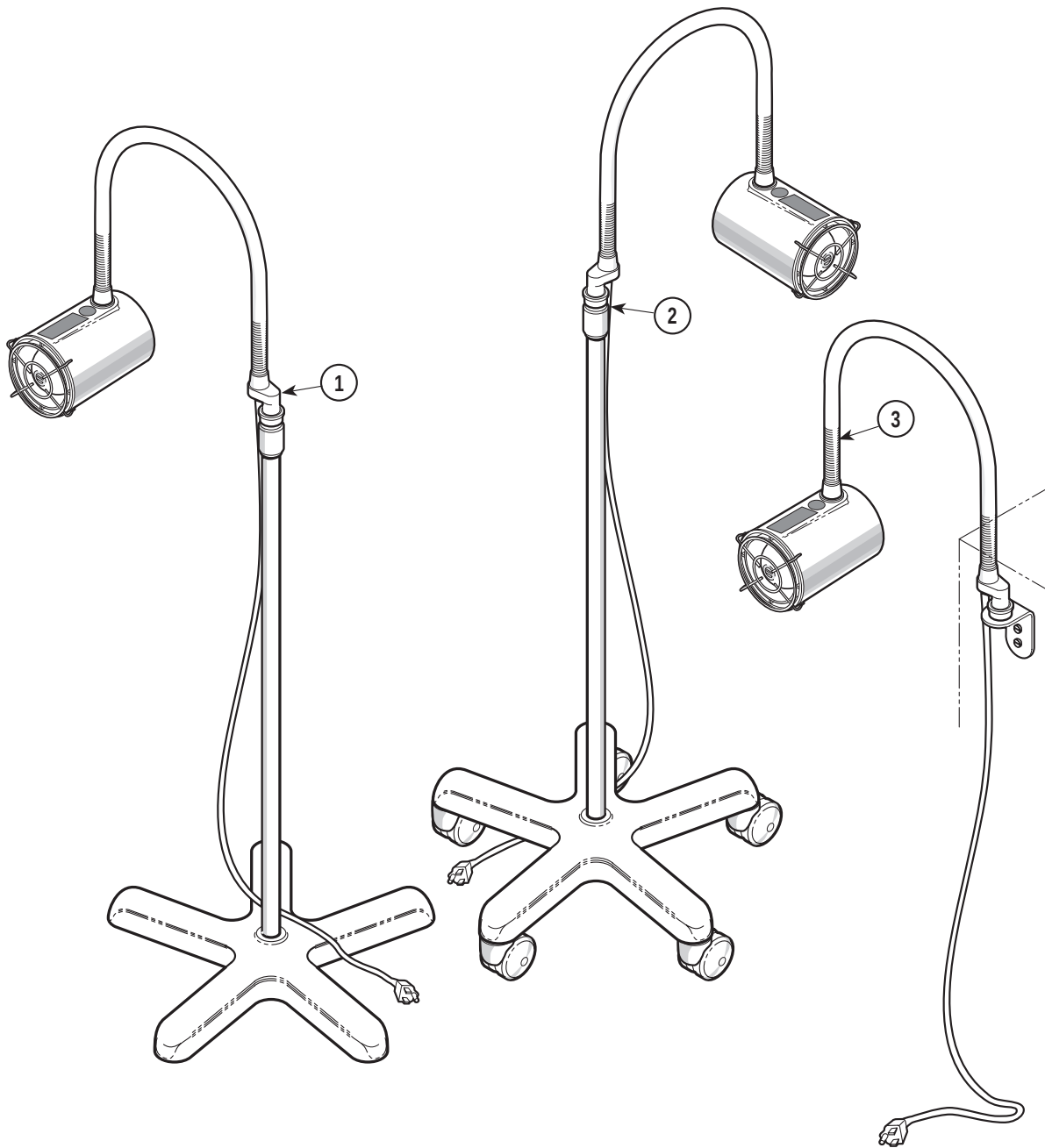
The *Description* column provides a physical description of the component.

The *Qty.* column lists the number of units of a particular component that is required for the subassembly. The letters "AR" denote "as required" when quantities of a particular component cannot be determined, such as: adhesive.

Bullets { • } in the *Part No.* column and the *Description* column show the indenture level of a component. If a component does not have a bullet, it is a main component of that illustration. If a component has a bullet, it is a subcomponent of the next component listed higher in the parts list than itself that does not have a bullet. Likewise, if a component has two bullets it is a subcomponent of the next component listed higher in the parts list than itself that has only one bullet.

Exam Lights

SECTION VI PARTS LIST



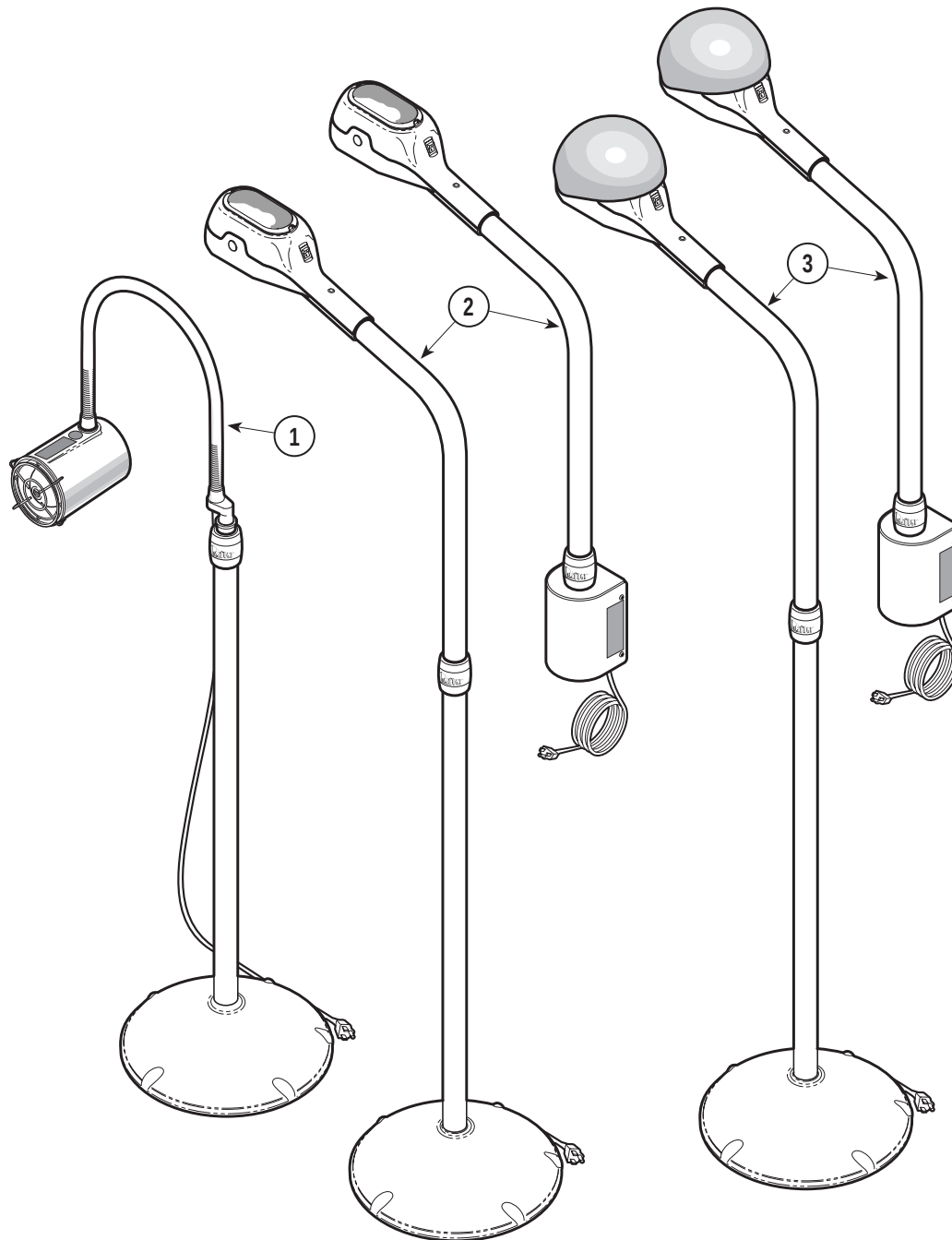
MA2554-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	157-002 157-005	Exam Light CSA Exam Light		3	157-003 157-006	Exam Light Cabinet Mtg. CSA Exam Light Cabinet Mtg.	
	•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1		•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1
	•	• 157 Exam Light Upright Assembly (See Breakdown Elsewhere)	1		•	• 157 Exam Light Upright Assembly (See Breakdown Elsewhere)	1
	•	• 157 Exam Light Base Assembly (See Breakdown Elsewhere)	1		•	• 157 Exam Light Base Assembly (See Breakdown Elsewhere)	1
2	157-001 157-004	Exam Light w/ Casters CSA Exam Light w/ Casters					
	•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1				
	•	• 157 Exam Light Upright Assembly (See Breakdown Elsewhere)	1				
	•	• 157 Exam Light Base Assembly (See Breakdown Elsewhere)	1				

Always Specify Model & Serial Number

Exam Lights

SECTION VI PARTS LIST



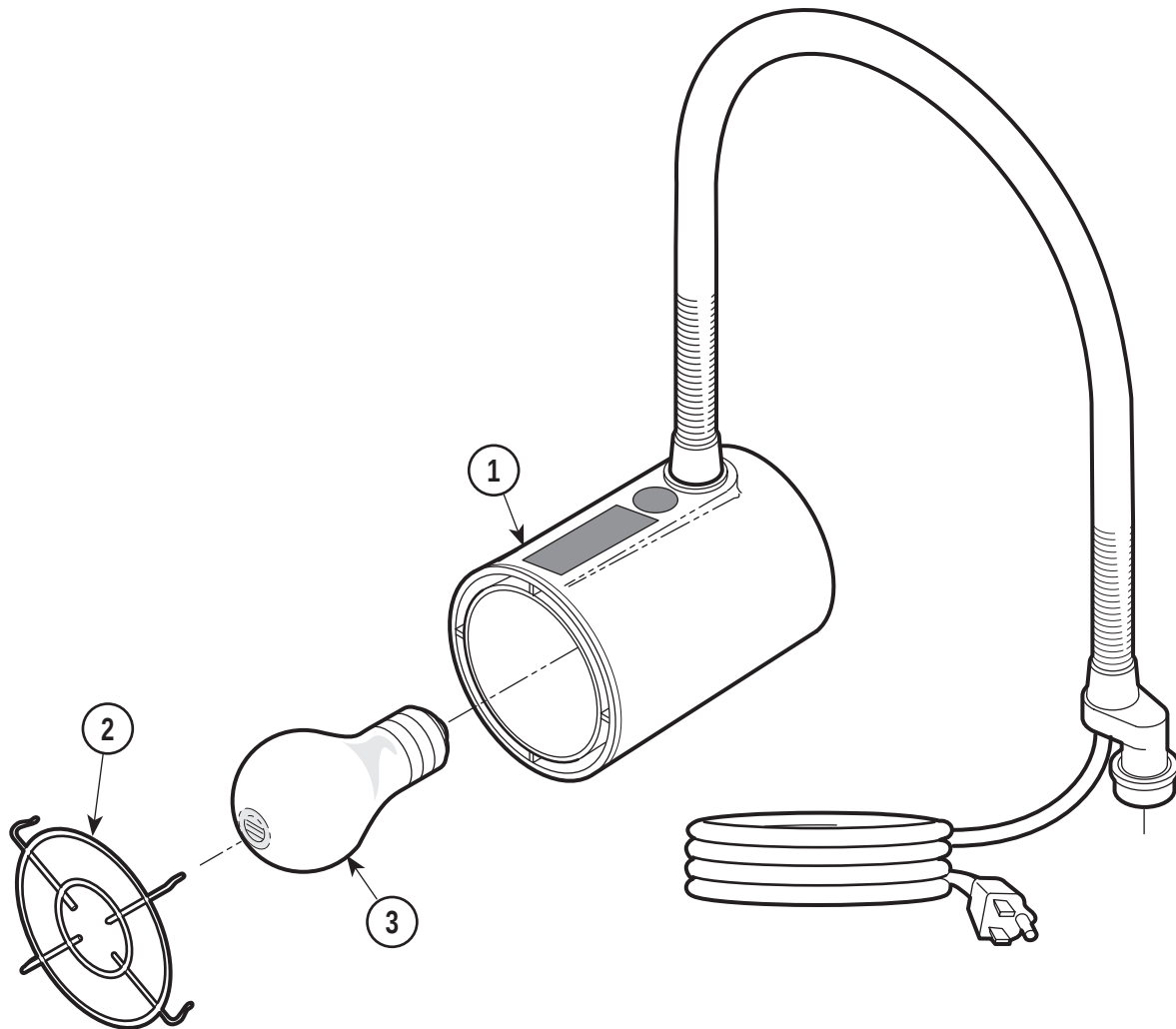
MA255003

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	157-007	Exam Light w/Casters				• Wall or Cabinet Mount Components (See Breakdown Elsewhere)	1
	157-008	Exam light w/Glides (Shown)		3	159-001	Exam Light w/Casters	
	•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1		159-002	Exam light w/Glides (Shown)	
	•	• 158 / 159 Base Components (See Breakdown Elsewhere)	1		159-003	Exam light w/Wall or Cabinet Mount (Shown)	
2	158-001	Exam Light w/Casters			•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1
	158-002	Exam light w/Glides (Shown)			•	• 158 / 159 Base Components (See Breakdown Elsewhere)	1
	158-003	Exam light w/Wall or Cabinet Mount (Shown)			•	• Wall or Cabinet Mount Components (See Breakdown Elsewhere)	1
	•	• Exam Light Head Assembly (See Breakdown Elsewhere)	1				
	•	• 158 / 159 Base Components (See Breakdown Elsewhere)	1				

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Exam Light Head Assembly

SECTION VI PARTS LIST



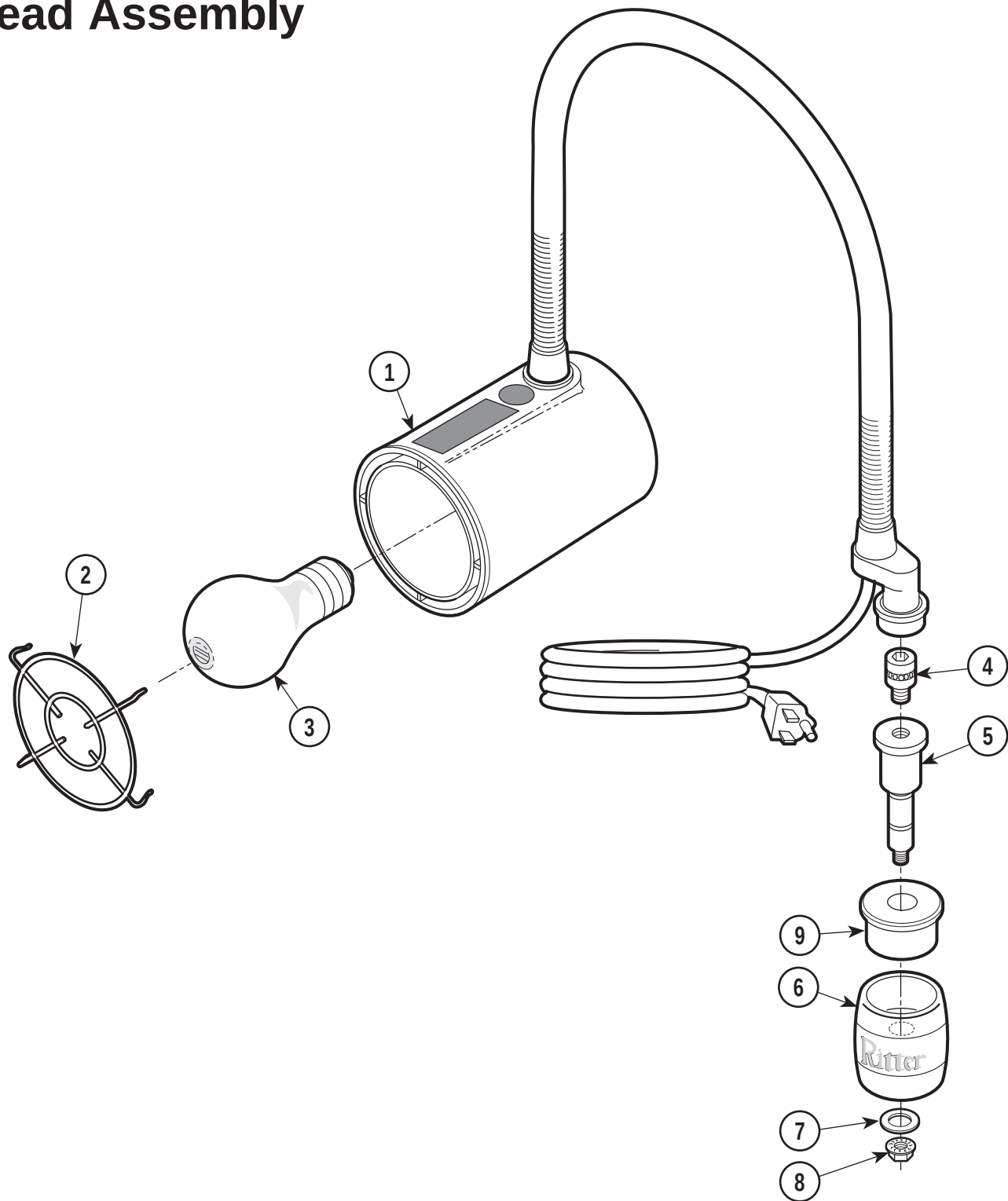
MA255900

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1153-00	(157-001) Light Head		2	• 030-1013-00	• Shield 157 Light	Ref
		(157-002) Light Head		3		Bulb	Ref
	029-1153-01	(157-003) Light Head					
		(157-004) Light Head					
		(157-005) Light Head					
		(157-006) Light Head	1				

Always Specify Model & Serial Number

Exam Light Head Assembly

SECTION VI PARTS LIST



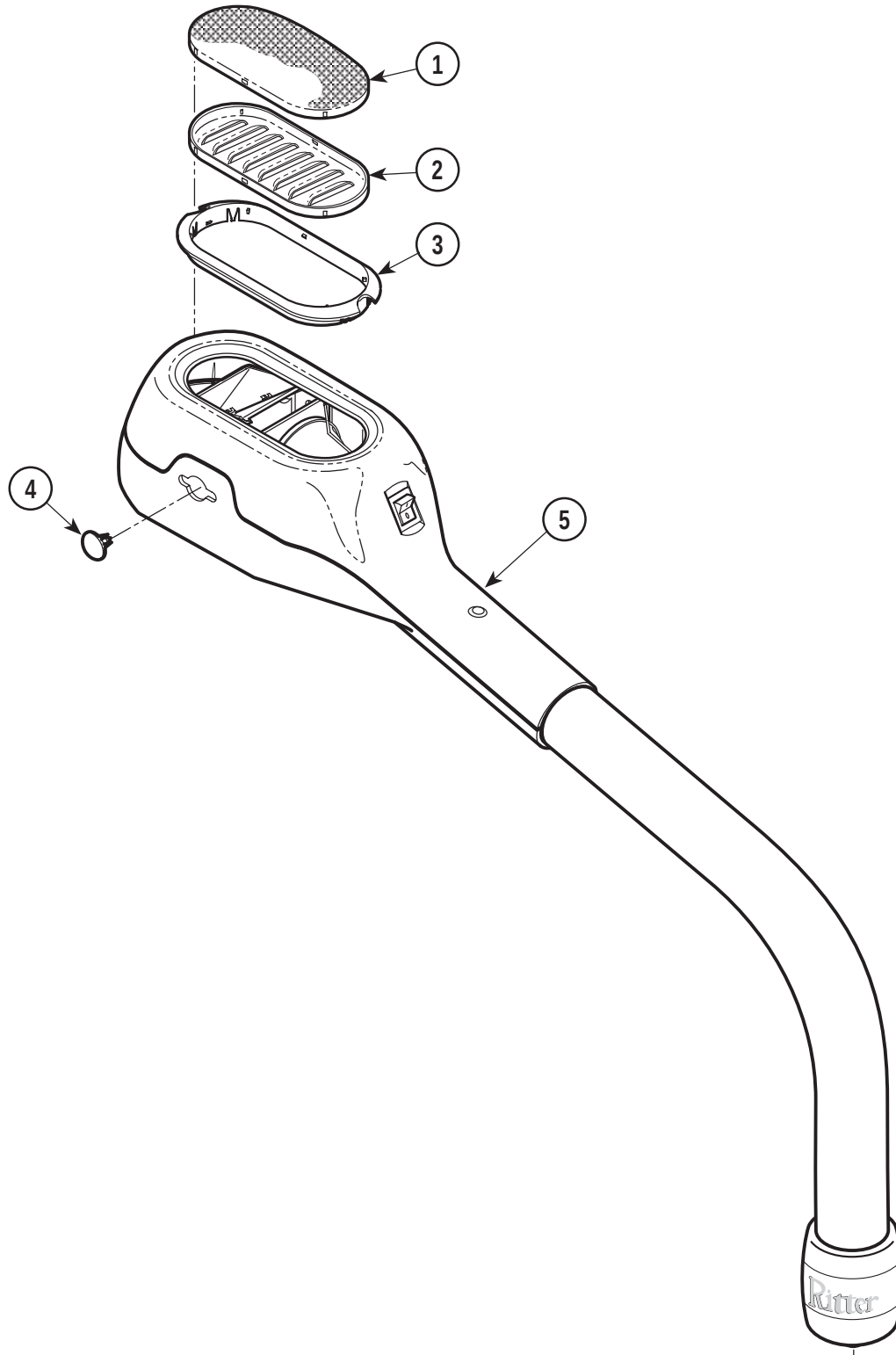
MA2549-01

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1153-02	Light Head	1	6	053-0603-00	Coupling	1
2	• 030-1013-00	• Shield 157 Light	Ref	7	045-0001-86	Washer	1
3		Bulb	Ref	8	041-0250-13	Nut	1
4	057-0233-00	Mounting Stud	1	9	053-0622-00	Coupling Plug	1
5	057-0385-10	Support Post	1				

Always Specify Model & Serial Number

158 Exam Light Head Assembly

SECTION VI PARTS LIST



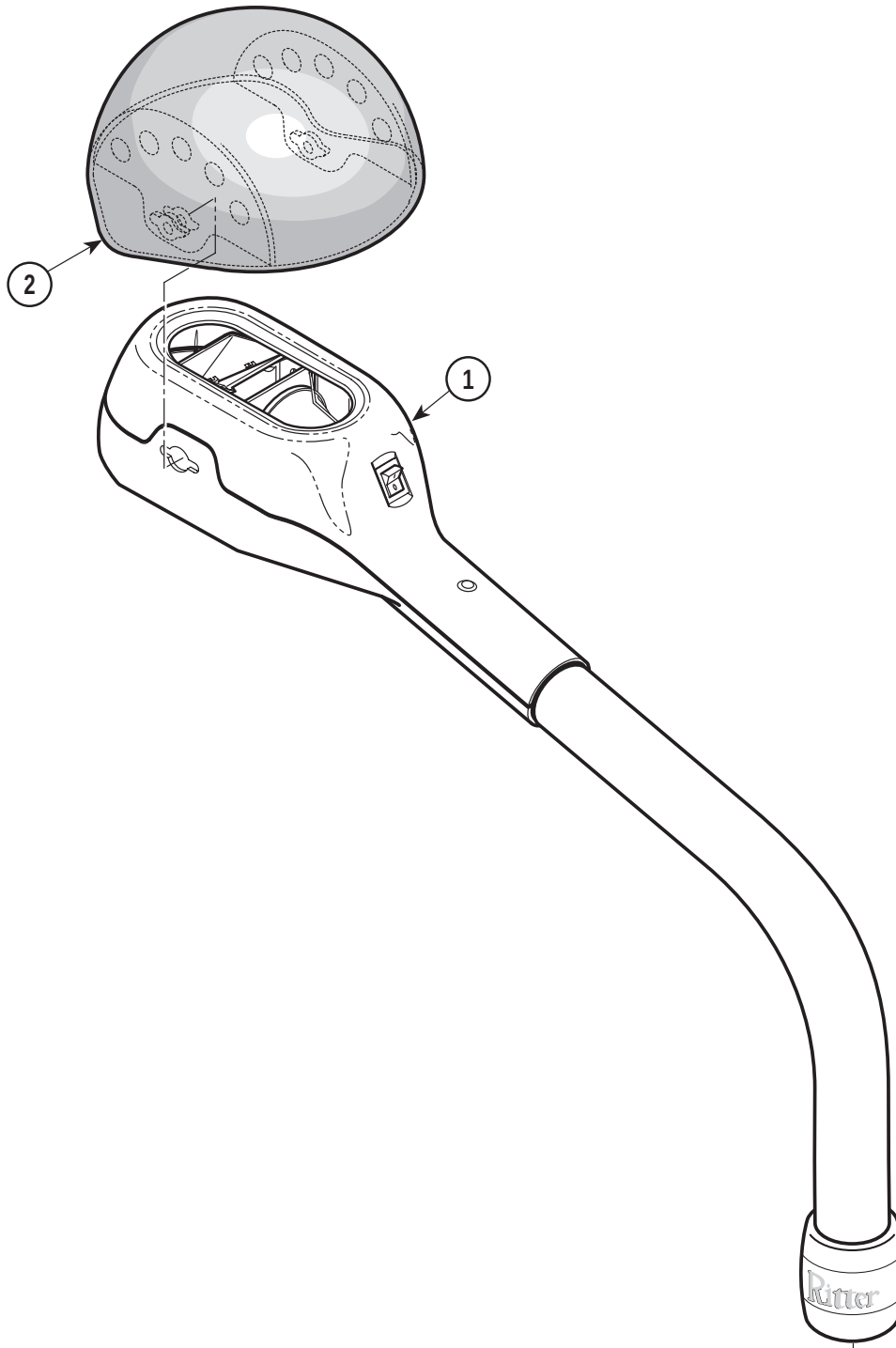
MA2546-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	050-2658-00	Screen 158 Light	1	4	053-0620-00	Button	2
2	050-2659-20	Shield 158 Light	1	5		Head & Arm Assembly	
3	053-0619-00	Bezel	1			(See Breakdown Elsewhere)	1

Always Specify Model & Serial Number

159 Exam Light Head Assembly

SECTION VI PARTS LIST



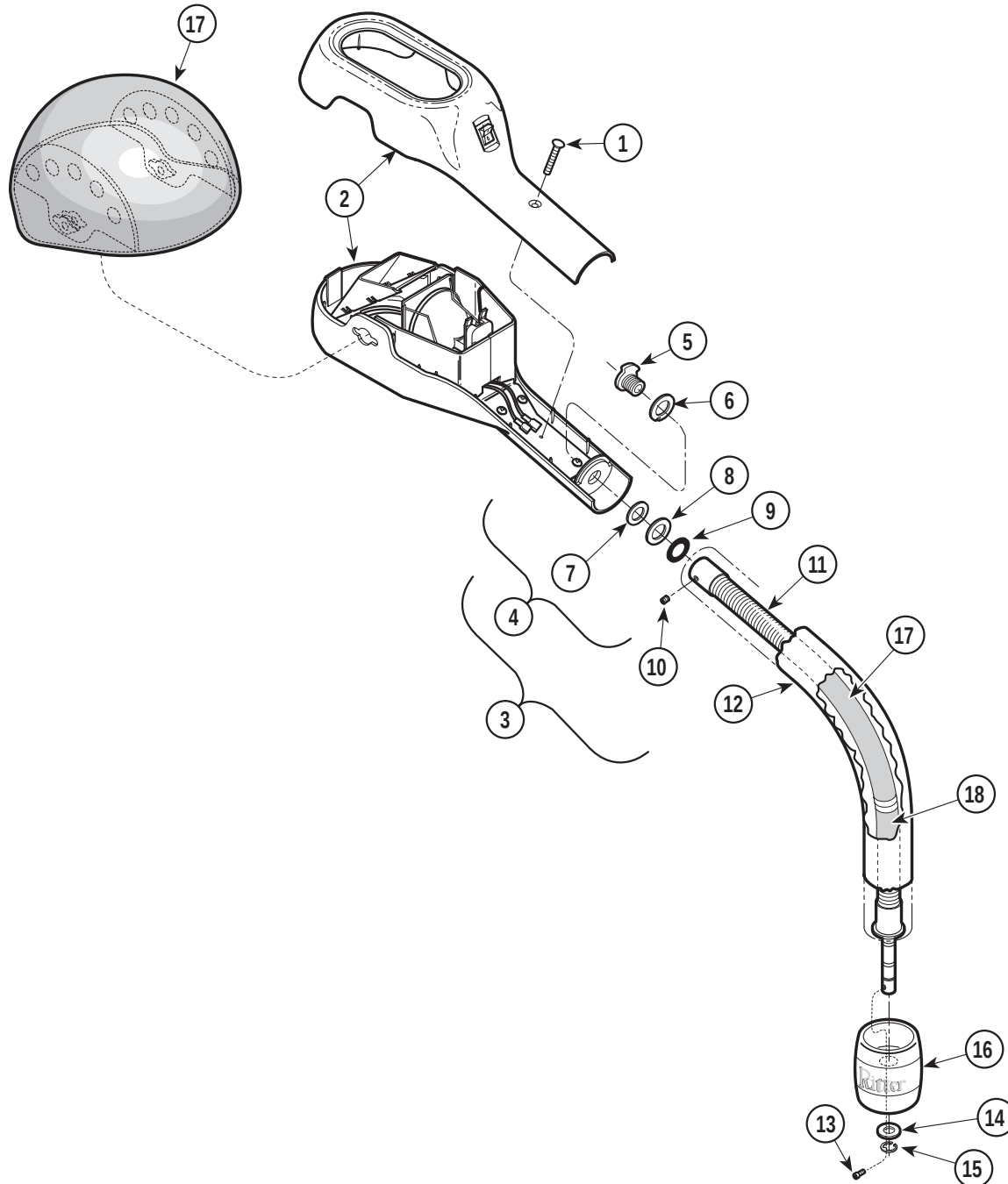
MA2551-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1		Head & Arm Assembly (See Breakdown Elsewhere)	1		9A201007	Light Hood - Pearl Grey (Optional)	
2	9A201001	Light Hood - Blush (Optional)			9A201008	Light Hood - Rosedust (Optional)	
	9A201002	Light Hood - Truffle (Optional)			9A201009	Light Hood - Victorian Teal (Optional)	
	9A201003	Light Hood - Chocolate Brown (Optional)			9A201010	Light Hood - Larkspur (Optional)	
	9A201004	Light Hood - Colonial Blue (Optional)			9A201011	Light Hood - Slate Grey (Standard)	
	9A201005	Light Hood - Rich Burgundy (Optional)			9A201012	Light Hood - Warm Grey (Optional)	
	9A201006	Light Hood - Turquoise (Optional)			9A201099	Light Hood - Special Color	1

Always Specify Model & Serial Number

158 / 159

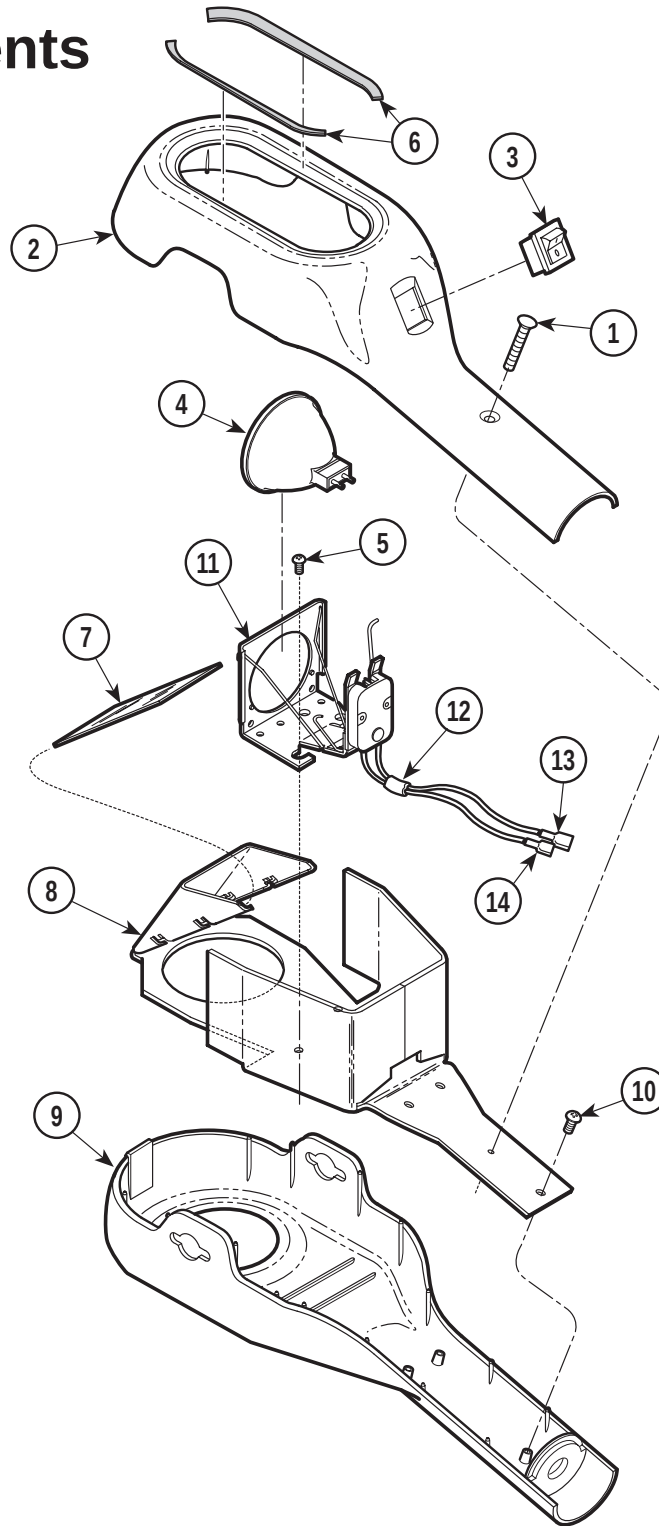
Head & Arm Assembly



MA254504

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	040-0006-70	Screw	1	10	• 040-0008-19	• Set Screw	1
2		Light Head Components (See Breakdown Elsewhere)	1	11	015-0924-00	Flex Arm (Includes items 5 thru 9)	1
3	002-0515-00	Swivel Rebuild Kit (Includes Item 4)	1	12	053-0606-00	Foam Cover	1
4	• 016-0663-00	• Swivel Bearing Kit (Includes Items 5 thru 9)	1	13	040-0004-18	Screw	1
5	••	•• Bearing	1	14	045-0001-86	Washer	1
6	••	•• Washer	1	15	042-0146-00	E-Ring	1
7	••	•• Nylon Washer	1	16	053-0603-00	Coupling	1
8	••	•• Washer	1	17	015-0466-01	Heat Shrink Tubing	AR
9	••	•• O-Ring	1	18	015-0793-00	Neck Reinforcement	1
				19	9A201011	Hood Assembly - Slate Grey	1

Always Specify Model & Serial Number

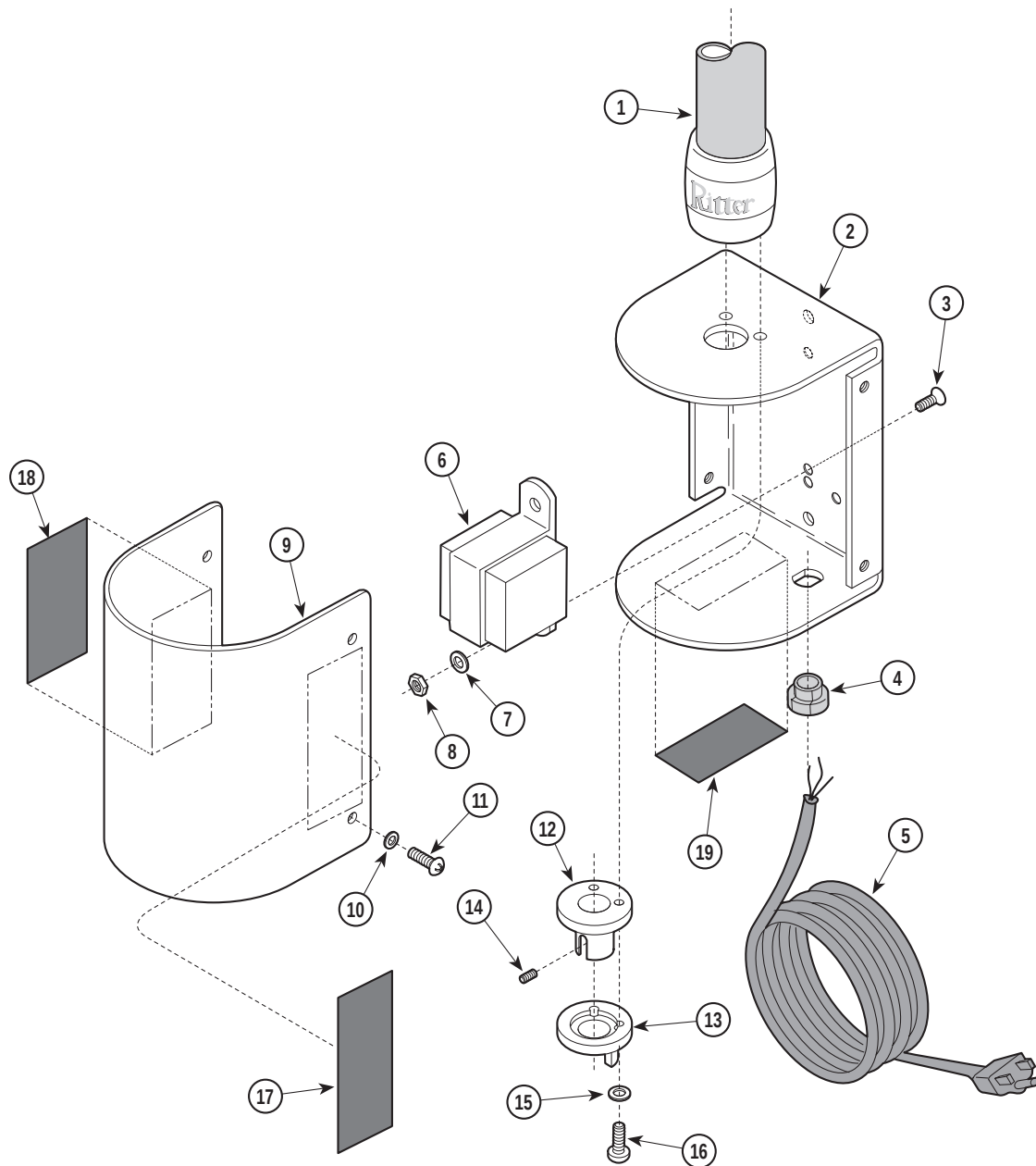
158 / 159**Head Components**

MA2511-01

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1		Screw	Ref	7	016-0543-00	Mirror	1
2	053-0605-00	Top Housing	1	8	050-2636-00	Mounting Support	1
3	015-0920-00	Switch	1	9	053-0604-00	Bottom Housing	1
4	015-0931-00	(158) Lamp 12 VAC 35 Watt	1	10	040-0006-65	Screw	3
	015-0922-00	(159) Lamp 12 VAC 50 Watt	1	11	015-0921-00	Lamp Mounting Bracket	1
5	040-0006-12	Screw	3	12	015-0466-11	Heat Shrink Tubing	1
6	061-0589-01	(158) Bulb Replacement Label	2	13	015-0315-05	Female Connector	1
	061-0589-00	(159) Bulb Replacement Label	2	14	015-0315-03	Male Connector	1

Always Specify Model & Serial Number

Wall or Cabinet Mount Components



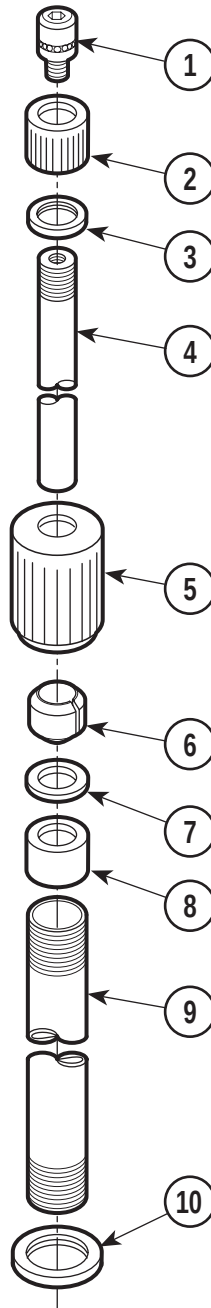
MA308400

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1		Head and Arm (Refer to "Head and Arm Assembly" Elsewhere)	Ref	10	045-0001-08	Lockwasher	4
2	050-3868-10	Wall Mount Bracket	1	11	040-0010-47	Screw	4
3	040-0008-27	Screw	3	12	057-0423-00	Retaining Shaft	1
4	015-0002-10	Strain Relief Bushing	1	13	057-0424-00	Anti-Rotation Bracket	1
5	015-0066-13	Power Cord	1	14	040-0004-18	Screw (Apply Loctite #042-0025-00)	1
6	015-0925-01	(158) Transformer - 35 VAC	1	15	045-0001-45	Lockwasher	2
	015-0925-00	(159) Transformer - 50 VAC	1	16	040-0006-33	Screw	2
	• 015-0315-00	• Female Terminal - Female	2	17	561-0201-00	Danger Label	1
	• 015-0315-03	• Female Terminal - Male	4	18	061-0034-00	Cord Tag	1
7	045-0001-94	Lockwasher	3	19		Serial No. Label	1
8	041-0008-00	Nut	3	20	040-0250-44	Mounting Screw (Not Shown)	2
9	050-3550-10	Wall Mount Cover	1	21	041-0250-13	Nut (Not Shown)	2
				22	040-0250-138	Drywall Screw (Not Shown)	2

Always Specify Model & Serial Number

157 Exam Light Upright

SECTION VI PARTS LIST



MA2558-01

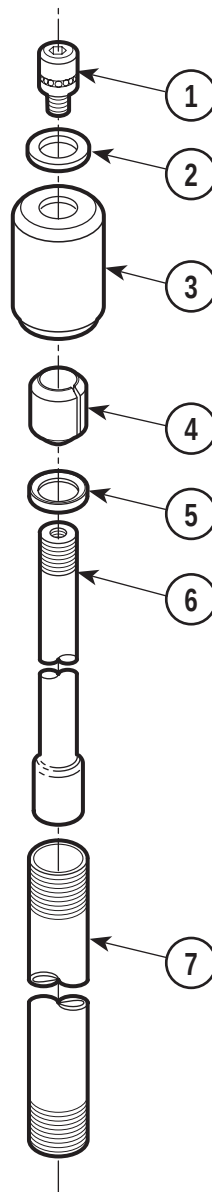
Used on units with Serial Number BR-1000 thru BR-8682

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
	029-1395-00	Upright Assembly	1	5	••	•• Clutch	Ref
1	•057-0233-00	• 1/2" Mounting Stud	1	6	••	•• Split Washer	Ref
2	•057-0232-02	• Fitting	1	7	••	•• Washer	Ref
	•029-1396-00	• Upright Tube Assembly	1	8	••	•• Tube Spacer	Ref
3	••	•• Small Nut	Ref	9	••	•• Lower Tube	Ref
4	••	•• 5/8 tube	Ref	10	••	•• Large Nut	Ref

Always Specify Model & Serial Number

157 Exam Light Upright

SECTION VI PARTS LIST



MA2558-00

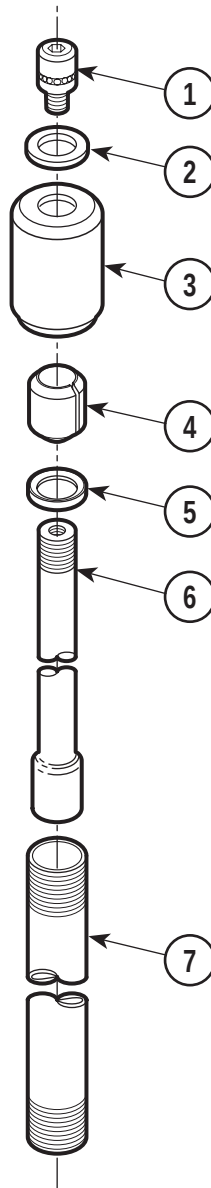
Used on units with Serial Number BR-8683 thru BR-10531

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1523-00	Upright Assembly	1	4	• 053-0484-00	• Clamping Ring	1
2	• 057-0233-00	• 1/2" Mounting Stud	1	5	• 052-0201-00	• Retaining Ring	1
3	• 045-0001-28	• Washer	1	6	• 052-0197-00	• Upper Tube	1
	• 052-0200-00	• Clutch Grip	1	7	• 052-0198-00	• Base Tube	1

Always Specify Model & Serial Number

157 Exam Light Upright

SECTION VI PARTS LIST



MA2558-00

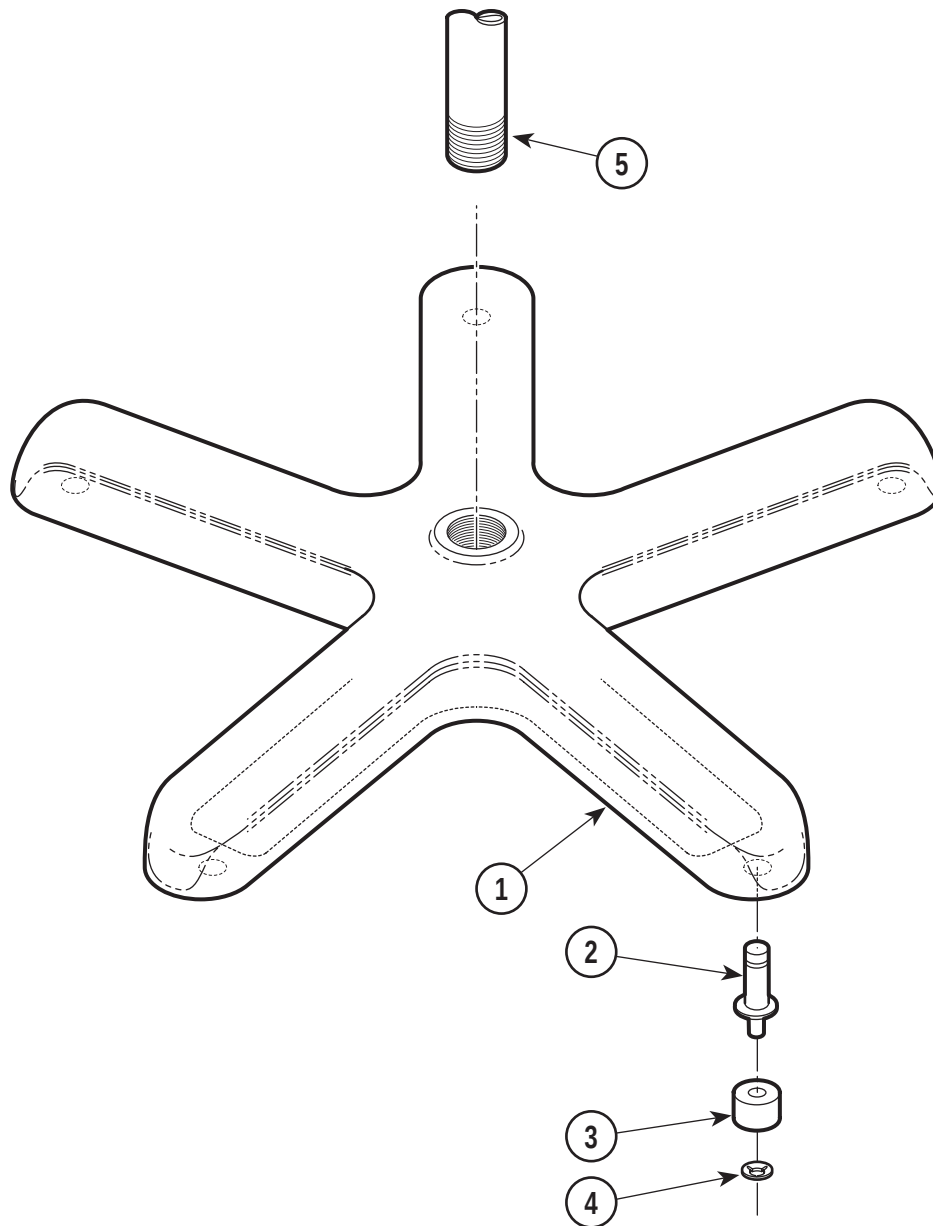
Used on units with Serial Number BR-10532 thru Present

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1523-00	Upright Assembly	1	4	• 053-0484-00	• Clamping Ring	1
2	• 057-0233-00	• 1/2" Mounting Stud	1	5	• 052-0201-00	• Retaining Ring	1
3	• 045-0001-28	• Washer	1	6	• 052-0221-00	• Upper Tube	1
	• 052-0200-00	• Clutch Grip	1	7	• 052-0222-00	• Base Tube	1

Always Specify Model & Serial Number

157 Exam Light Base

SECTION VI PARTS LIST



MA2564-00

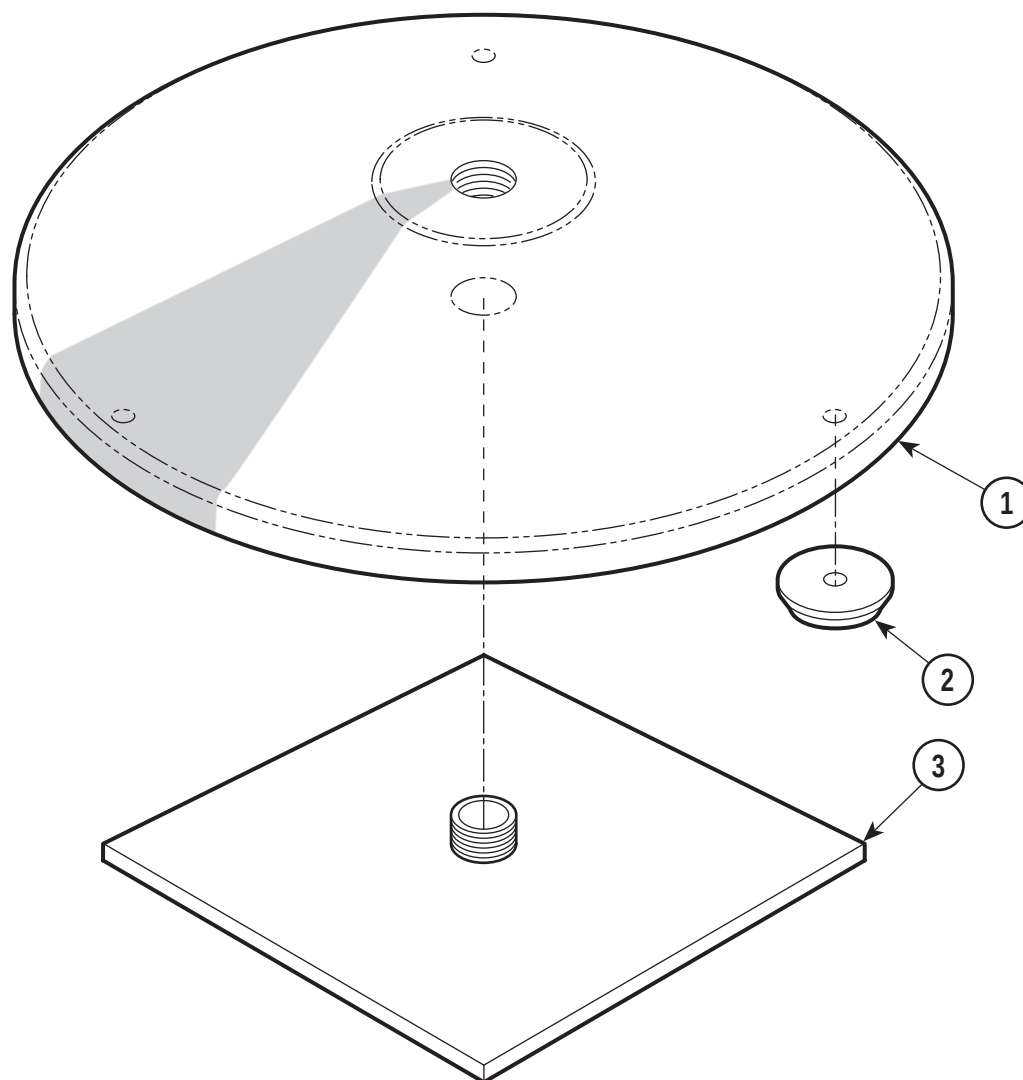
Used on units with Serial Number BR-1000 thru BR-2642

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1155-00	• Base Assembly	1	3	••• 053-0332-00 •••	Recess Bumper	5
	• 020-0073-00	• Base Casting	1	4	••• 042-0061-00 •••	Retaining Ring	5
	•• 029-1161-00	•• Glide Assembly	5	5		Upright Tube	Ref
2	••• 016-0365-00	••• Glide Stem	5				

Always Specify Model & Serial Number

157 Exam Light Base

SECTION VI PARTS LIST



MA2563-00

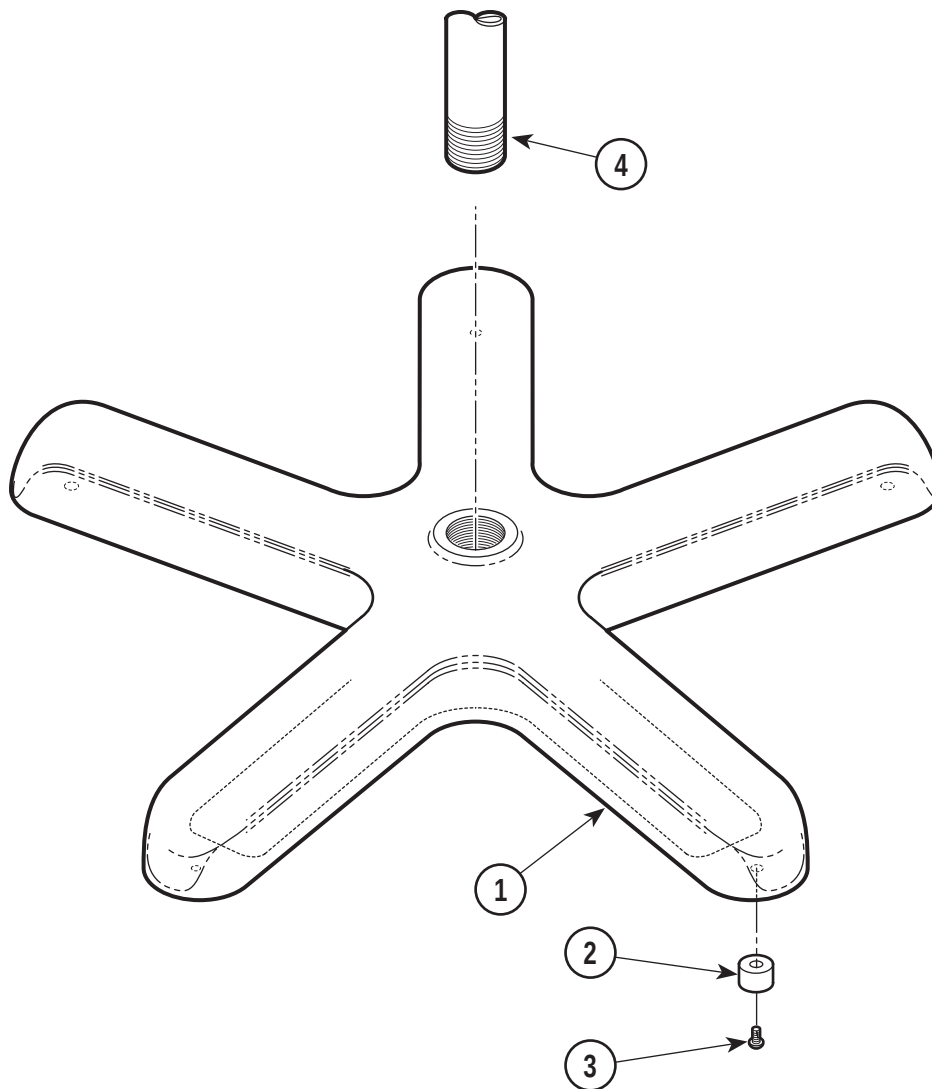
Used on units with Serial Number BR-2643 thru BR-10531

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
	029-1521-00	• Base Assembly	1	3	• 040-0008-04	• Screw	5
1	• 020-0073-02	• Base Casting	1	4		Upright Assembly	Ref
2	• 053-0020-00	• Bumper	5				

Always Specify Model & Serial Number

157 Exam Light Base

SECTION VI PARTS LIST



MA2556-00

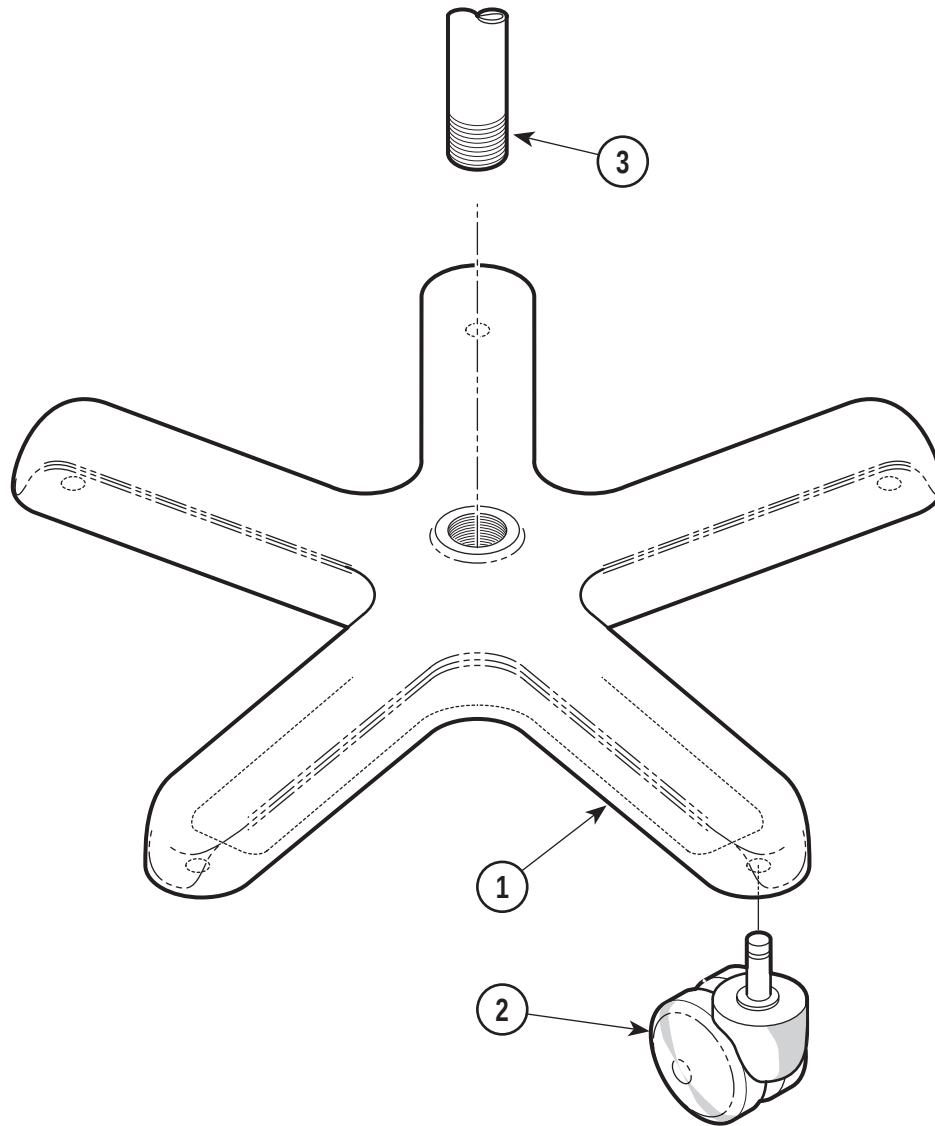
Used on units with Serial Number BR-10532 thru Present

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
	029-1521-00	• Base Assembly	1	3	• 040-0008-04	• Screw	5
1	• 020-0073-02	• Base Casting	1	4		Upright Assembly	Ref
2	• 053-0020-00	• Bumper	5				

Always Specify Model & Serial Number

157 Exam Light Base w/ Casters

SECTION VI PARTS LIST



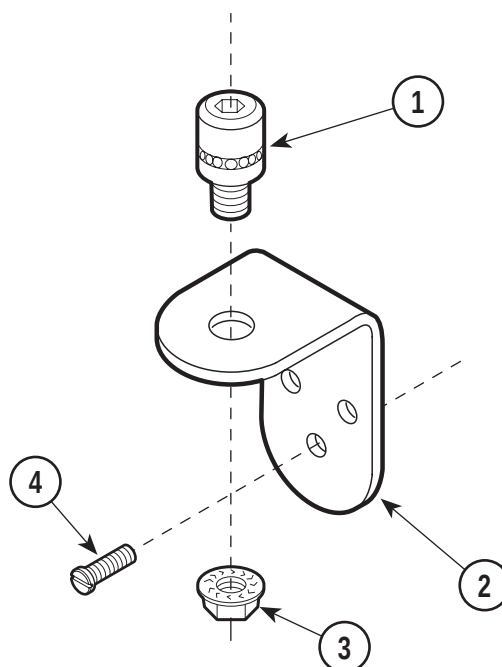
MA2555-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	029-1156-00	Base Assembly	1	2	• 016-0507-00	• Caster	5
	• 020-0073-03	• Base Casting	1	3		Upright Assembly	Ref

Always Specify Model & Serial Number

157 Exam Light Cabinet Mounting

SECTION VI PARTS LIST



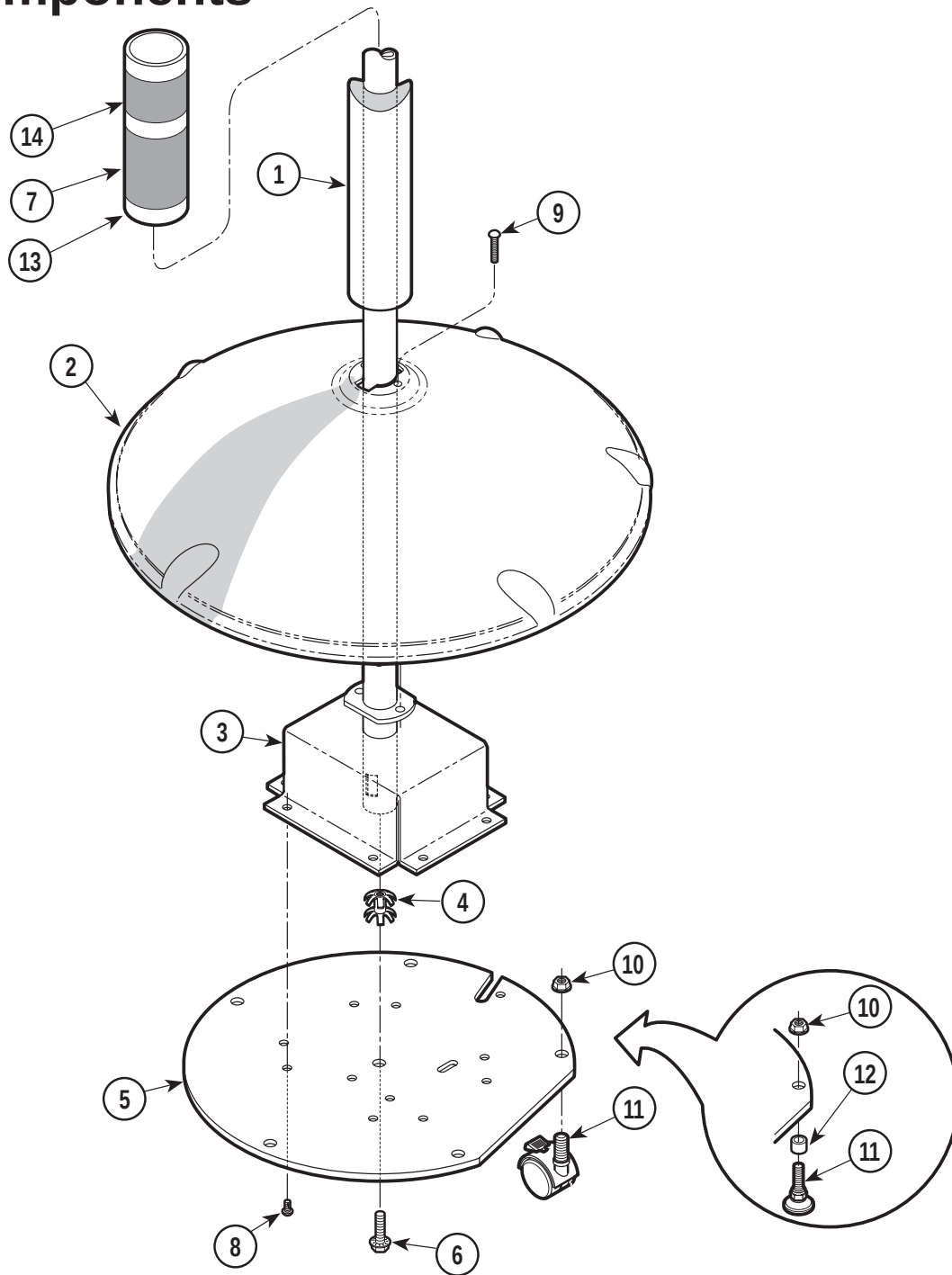
MA255701

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
	029-1243-00	Mount Assembly	1	3	• 041-0375-12	• Nut	1
1	• 057-0233-00	• 1/2" Mounting Stud	1	4	• 040-0008-01	• Wood Screw	3
2	• 050-4616-00	• Mounting Bracket	1		• 042-0010-04	• Pop Rivet (Not Shown)	3

Always Specify Model & Serial Number

Exam Light Base Components

SECTION VI PARTS LIST



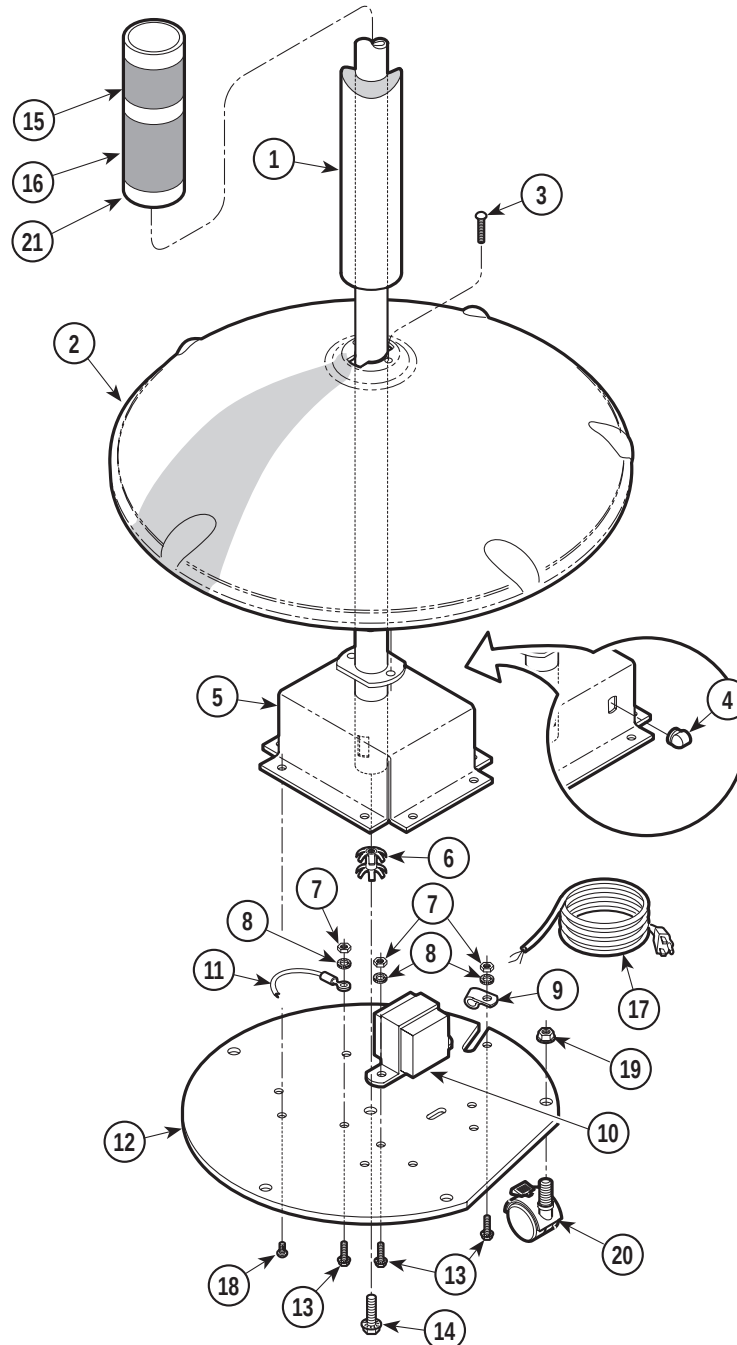
MA2553-02

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	053-0606-00	Foam Cover	1	9	040-0010-52	Screw	2
2	053-0786-00	Base	1	10	041-0312-05	Nut	5
3	030-0946-00	Upright	1	11	016-0565-00	Caster (Shown)	
4	042-0114-00	Tube Insert	1		016-0317-00	Glide	5
5	050-3206-00	Base Plate	1	12	016-0138-03	Spacer	5
6	040-0250-95	Screw	1	13	052-0247-10	Label Tube	1
7	061-0485-00	Caution Label - Explosive	1	14	061-0034-00	Cord Label	1
8	040-0010-04	Screw	8				

Always Specify Model & Serial Number

158 / 159

Base Transformer Components



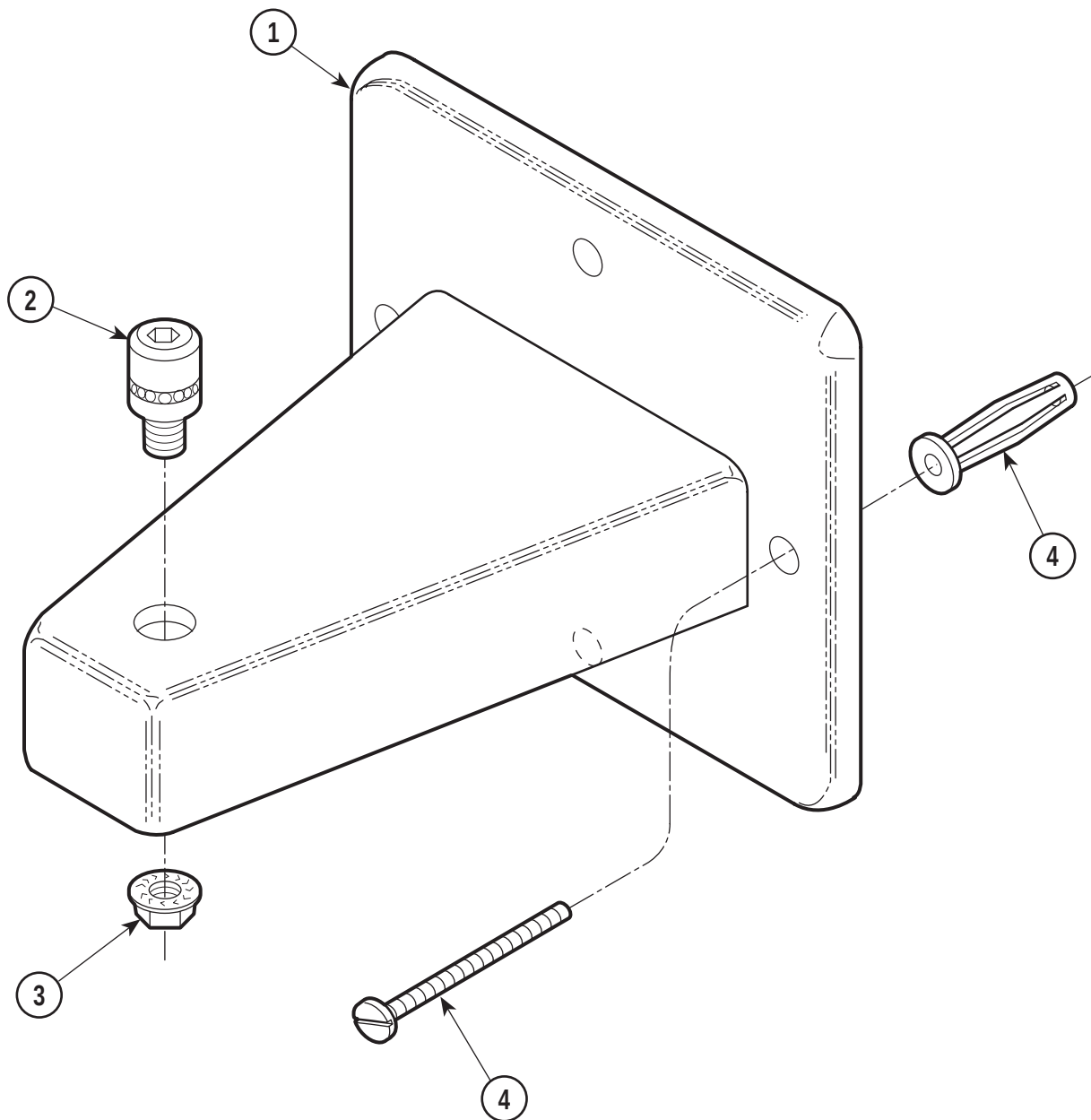
MA2552-03

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1		Foam Cover	Ref	11		Ground Wire	Ref
2		Base	Ref	12		Base Plate	Ref
3		Screw	Ref	13	040-0010-91	Screw	4
4	015-0002-00	Strain Relief	1	14		Screw	Ref
5		Upright	Ref	15		Cord Label	Ref
6		Tube Insert	Ref	16		Caution Label - Explosive	Ref
7	041-0010-00	Nut	4	17	015-0066-13	Cord	1
8	045-0001-31	Washer	4	18		Screw	Ref
9	015-0001-00	Wire Clip	1	19		Nut	Ref
10	015-0925-01	(158) Transformer 35 VAC		20		Caster (Shown)	
	015-0925-00	(159) Transformer 50 VAC	1	21		Glide	Ref
						Label Tube	Ref

Always Specify Model & Serial Number

157 Exam Light Wall Mounting

SECTION VI PARTS LIST



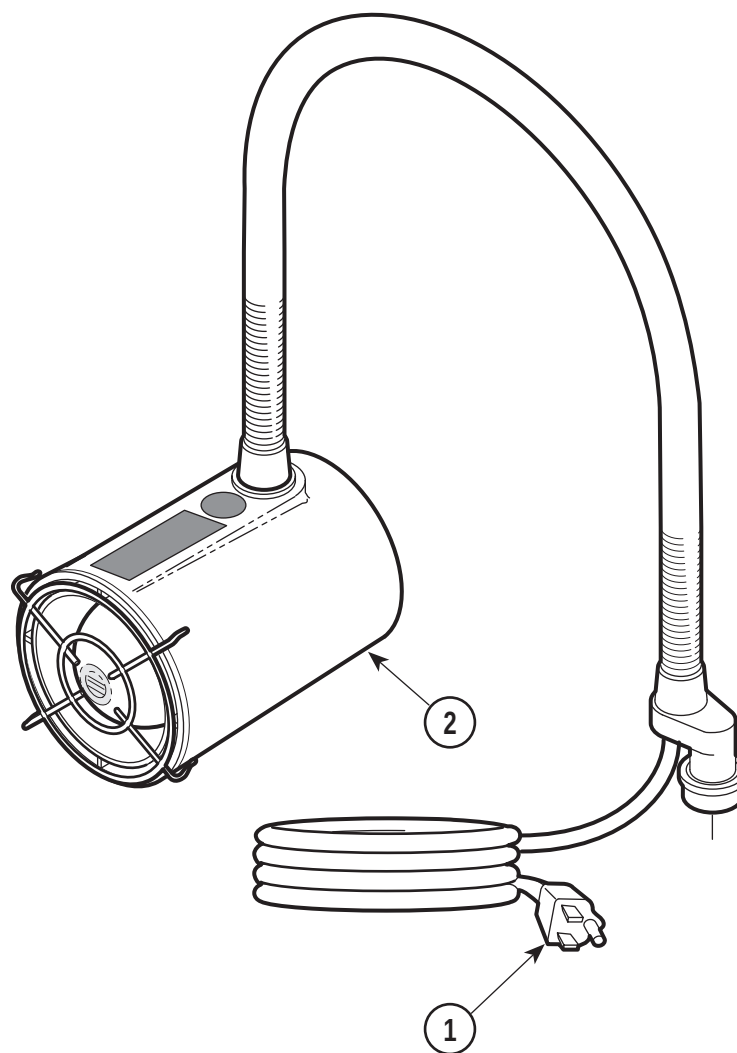
MA2562-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	9A132001	157 Exam Light Wall Mounting	1	2	•• 057-0233-00	•• 1/2" Mounting Stud	1
	•• 029-1253-00	•• Wall Mounting Bracket Assembly	1	3	•• 041-0375-12	•• Nut	1
	•• 030-0911-00	•• Bracket Weldment	1	4	•• 042-0098-01	•• Anchor Screw	4

Always Specify Model & Serial Number

157 Exam Light Export Plug

SECTION VI PARTS LIST



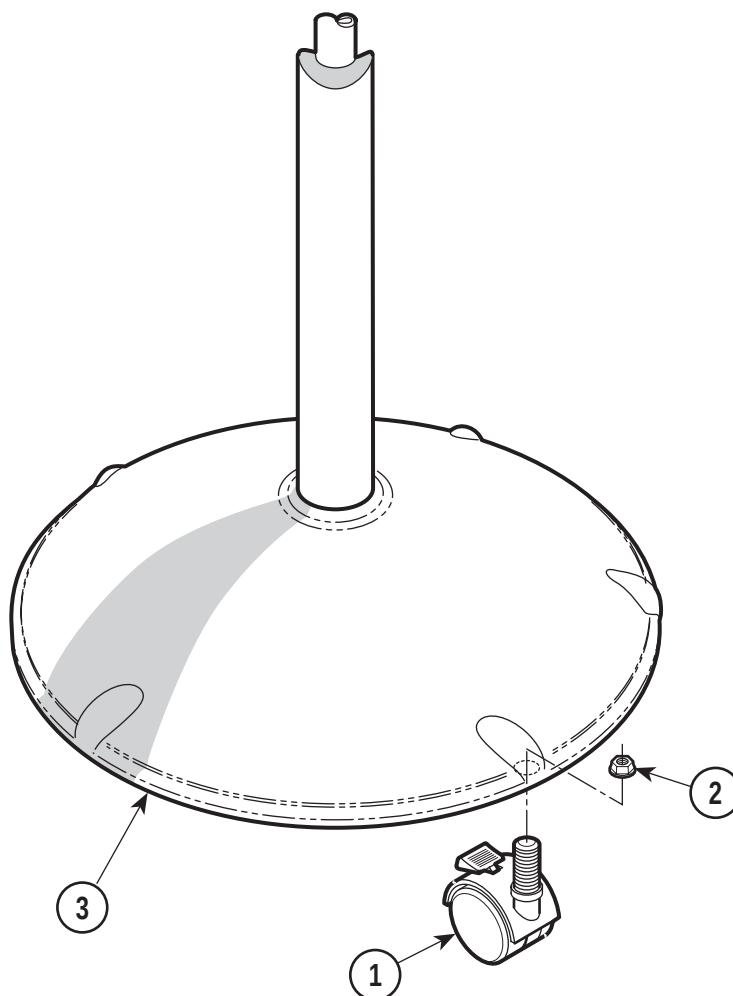
MA2561-00

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	9A196001	157 Exam Light Plug - Australian		2		157 Exam Light Head	Ref
	9A196002	157 Exam Light Plug - Italian					
	9A196003	157 Exam Light Plug - Europe					
	9A196004	157 Exam Light Plug - Israeli					
	9A196005	157 Exam Light Plug - Swiss					
	9A196006	157 Exam Light Plug - UK					
	9A196007	157 Exam Light Plug - Indian	1				

Always Specify Model & Serial Number

Exam Light Caster Accessory

SECTION VI PARTS LIST



MA2560-01

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	9A202-002 • 016-0565-00	Caster Accessory • Caster	5	2	041-0312-05	Nut	5
				3		Alternate Care Light Base	Ref

Always Specify Model & Serial Number

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